Date: Tue, 10 May 94 04:30:10 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #137
To: Ham-Ant

Ham-Ant Digest Tue, 10 May 94 Volume 94 : Issue 137

Today's Topics:

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

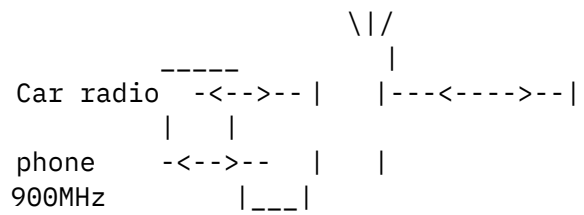
We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Sat, 7 May 1994 14:12:22 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!pipex!warwick!nott-cs!lut.ac.uk!
cocw@network.ucsd.edu
Subject: 900Mhz & 90MHz same antenna
To: ham-ant@ucsd.edu

Hi,
I have an active car antenna ('bee-sting' type on a VW Golf) which I believe
is being 'blown' by a mobile phone. I'd like to know what I can do to prevent
this. The hand portables here have a po of about 0.6W at arounf 900MHz. I
guess its the close proximity of this to the wide-band amplifier is causing
this. On the radio MW and LW (AM) is non-existant and VHF (FM) is very poor.

A low-pass filter designed to let signals say less than 150MHz would be ok?
Or better still, a system whereby the >850MHz would be split from <200MHz,
on tx and rx would be ideal.

Any one help me out or have any suggestions please ??



regards
Chun

Date: 10 May 94 06:11:27 GMT
From: agate!howland.reston.ans.net!gatech!taco.cc.ncsu.edu!
csemail.cropsci.ncsu.edu!samodena@ucbvax.berkeley.edu
Subject: A "shorty" 40 M mobile antenna
To: ham-ant@ucsd.edu

40 Meter Band Easy Mobile Antenna

I have an old Radio Shack CB-base-station antenna bracket mounted on
the right rear quarter panel of my '79 Ford for my "mobile" mast
all-band antenna system.

But I wanted an "in motion" antenna for a trip to Massachusetts this
past weekend...which I homebrewed as follows:

> There are five main parts: an antenna base section, a wooden
> spacer, a piece of B&W coil stock, a piece of fiberglass rod,
> and some tinned braid.
>
> The base section is 1-1/4" dia. aluminum tubing, 4 ft. long.
>
> I painted a 12" piece of 3/4" dowel stock with black paint to
> "water-proof" it.
>
> I drilled four transverse holes and one coaxial hole--to
> push the fiberglass rod into.
>
> Inserting the dowel into the top of the base section, I

> used a brass screw and nut to mount the dowel.
>
> To determine the loading coil needed, I picked out the biggest remnant of B&W coil stock I had and used two cable ties to mount it to the dowel (looped thru the two middle transverse holes).
>
> I soldered some tinned braid to the end of the coil stock, cut it to length, soldered on an eyelet lug, and secured it to the mounting screw with a second nut (see above)...making the band determining upper part detachable from the base section.
>
> I soldered an 18" piece of tinned braid to the top of the coil, feed it through the top transverse hole in the dowel and secured the braid to the dowel and fiberglass rod with several cable ties.
>
> With an MFJ SWR analyser I trimmed the braid for lowest SWR at 7.2335 MHz (the meeting place for the 3905 Century Club WAS Net). With the antenna adjusted, I hot gluded all of the trimmed cable ties to keep them from moving.
>
> It just so happened that the piece of coil stock I chose could be tuned to the 40 meter band without modification...but then that was both experience and luck. :^)

I run a TS-430-s, 100 watts nominal, Radio Shack SWR meter, and a cheapy MFJ Versa Tuner into RG-8U "silver" foam coax.

I must have been hot from CT, NY and NJ Sunday night because half of the check-ins on the 3905 Net called me....since I wasn't logging, I can't give the statistics ...but I can say I got as many 55, 57 and 59 reports as I had 22, 33, and 44...and calls were from all parts of the country.

But the antenna was blessed with a long band, 'cuz the DX of the night was with NH6EU in the Hawaii Capital, exchanging a 33 each way. :^)

One comment I got from a friend was that he was "surprised" that I'd use such a low grade tansmatch...presumably referring to power loss in the box. I countered that his Hustler probably had a #22 wire under the shrink-wrap versus the 1-1/4" dia. base section of my "shorty"... and, IMHO, *that* difference was more critical.

73,

Steve Modena AB4EL nmodena@unity.ncsu.edu

Date: 10 May 94 06:21:53 GMT
From: pa.dec.com!nntpd2.cxo.dec.com!iamu.chi.dec.com!little@decwrl.dec.com
Subject: Loaded LPDA?
To: ham-ant@ucsd.edu

I'm considering designing a Log Periodic Dipole Array and would like to find out if it is possible to shorten the elements by using some form of linear loading. I'd like to build an antenna that covered 6 meters to 20 meters and was about 10-15 feet in length, with elements no longer than 20 feet.

Would it be possible to somehow load the last 2-3 elements that would be active on 18 and 20 meters to short them to 15 meter dimensions? Has anyone built such an antenna?

73,
Todd
N9MWB

Date: Mon, 9 May 94 08:00:20 MST
From: ihnp4.ucsd.edu!usc!sdd.hp.com!news.cs.indiana.edu!lynx.unm.edu!
dns1.NMSU.Edu!dns1.NMSU.Edu!usenet@network.ucsd.edu
Subject: Loading the boom on a monobander.
To: ham-ant@ucsd.edu

On 6 May 1994 15:17:46 GMT,
Bill Standerfer <bills@lvld.hp.com> wrote:

>In article <Pine.3.89.9405052316.A27835-0100000@ume>, Rick Zabrodski
(zabrodsk@med.ucalgary.CA) wrote:
>> [...] I read in the NCJ several years ago a
>> reference to loading the boom of a 20 meter yagi for 40 meters. In theory
>> it should work on several bands as a rotatable dipole. Does anyone have
>> any experience with this? Does one isolate the boom from tower? Could the
>> boom be fed with ladder line?
The NCJ article was within last year or so and used a gamma match to excite the boom. That would not work well with ladder line, of course

---

Date: 9 May 1994 14:28:00 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!vixen.cso.uiuc.edu!
usenet@network.ucsd.edu
Subject: Noise in apartment antenna + 20

To: ham-ant@ucsd.edu

In <9405081433.AA07741@venus.atkc.com>, davev@venus.ATkc.COM (Dave van De Kerk)
writes:
>While awaiting my license, I bought an Icom 720 A and tried stringing
>up a simple horizontal dipole. I am getting +20 static whenever I rig
>up the antenna. I'm using speaker wire for the antenna and speaker
>wire for the ground. Unhooking the ground seems to do nothing at all.
>Any antenna I rig up seems to just bring on the noise. Unfortunately,
>I'm new at this so all serious suggestions wil be accepted. BTW, of
>course my apartment has a no antenna policy and I am on the first floor.
>
>
>My new HTX 202 handie talkie seems to receive fine. An old Zenith shortwave
>radio picked up some stuff, real bad at times but I could usually find
>WWV. I took the Icom over to a friend's house last night and on his
>antenna he got Mexico and Alabama just fine.
>
>davev@atkc.com

I posted a similar question about 2 weeks ago. From the responses
the noise sources can be summarized as follows:
1. Computer (noises differ depending on what is being computed),
2. TV receivers and monitors (strong harmonic every 19-50 KHz),
3. Light dimmers, variable-speed fans etc., - very strong power noise
that easily travel on power lines,
4. Fluorescent lights, especially "lightsticks", similar to 3 but
weaker.
5. Arcing in furnaces (?), noise less structured than any other
sources.

The best way to beat the noise is to have the outside antenna. I know
that often this is impossible.

Ignacy Misztal Ham radio: NO9E, SP8FWB
E-mail: ignacy@uiuc.edu
University Of Illinois 1207 W. Gregory Dr., Urbana, IL 61801, USA
tel. (217) 244-3164 Fax: (217) 333-8286

Date: Thu, 5 May 1994 03:02:29 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!darwin.sura.net!
perot.mtsu.edu!raider!theporch!jackatak!root@network.ucsd.edu
Subject: Sidearm Physics
To: ham-ant@ucsd.edu

00tlzivney@leo.bsuvc.bsu.EDU writes:

> I was thinking about antenna projects for this summer. In particular,
> I was looking up articles on sidearms.
>
> 10 x 50 x 24 = 6,000 in-lb of torque on the rotor trying to turn the
> side arm.
TURN the sidearm? Must be a different kind than any of the ones I
have... my Rohn sidearms are about 5 foot from tower leg (when the
legs of the sidearm are bolted to the tower legs) to the vertical stub
mast... Trying to turn that would auger the whole tower into the
dirt.... hardly a fun exercise, though I have seen some rotor motors
that could do it! ;^)

Now, as for turning your antenna in a 50mph wind: I would advise
against it... plays hell with the antenna, even if it never slams into
the tower, and will tear up your rotor quick...

> Does anyone have any thoughts/experience with this????
I thought so, but obviously my idea of a sidearm is way off from what
you mean... check a Rohn catalog, and go with how they suggest... if
it isn't Rohn, then make sure your will is in good shape... ;^)
73,
Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657 -- all from the mobile! ;^)

+--*--+
Jack GF Hill	Voice: (615) 459-2636 - Ham Call: W4PPT
P. O. Box 1685	Modem: (615) 377-5980 - Bicycling and SCUBA Diving
Brentwood, TN 37024	Fax: (615) 459-0038 - Life Member - ARRL
root@jackatak.raider.net -   "Plus ca change, plus c'est la meme chose"
+--*--+

Date: 9 May 94 20:14:51 GMT
From: agate!dog.ee.lbl.gov!overload.lbl.gov!s1.gov!fastrac.llnl.gov!
usenet.ee.pdx.edu!cs.uoregon.edu!sgiblab!sdd.hp.com!math.ohio-state.edu!
howland.reston.ans.net!news.cac.psu.edu!news.@
Subject: SWR too low?
To: ham-ant@ucsd.edu

Hevo,
i have a 11m homemade ground plane.....a 102" whip with 4, 102" wire radials
on the ground.
recently i have put on a lightning surge protector, and that made the SWR from
3++ to about 1.3. But today i turned it on and tests my mobile antenna, the
SWR reading was 0....then i tested my GP..0 and now both of them together are
about 1.2 SWR.
anyreason why i got a 0 reading sudden;y on each?

if you can help..thanks!

DAvid
N3???/FUN
6 weeks and waiting!
--
:)**(:
**   ** The Flying HAm   **
**   David Roseman   ** c002@lehigh.edu   **
**   SysOp of NODE 3 BBS   ** Crossbow@rushnet.com   **
**   **   **
** Cole's Law: Thinly sliced Cabbage **   **
****

Date: 8 May 1994 23:56:04 GMT
From: psinntp!muddy.huber.com!marley.huber.com!eddxu@uunet.uu.net
Subject: Thru Glass Antenna
To: ham-ant@ucsd.edu

i'Im new to this system as you can see. Does anyone have any experience
with through glass antennas for 2 Meters. I would appreciate your reply.
Thanks,
Howard K2PYY

Date: 9 May 1994 11:38:32 GMT
From: ihnp4.ucsd.edu!swrinde!gatech!mailer.acns.fsu.edu!freenet3.scri.fsu.edu!
freenet2.scri.fsu.edu!kd4kw@network.ucsd.edu
Subject: Thru Glass Antenna
To: ham-ant@ucsd.edu

well my xyl has a thru glass on our sable. its a ....
gee cant think of brand but its a cheaper one($27.00)
seems to work pretty good. I think a 5/8 would work
better but not much.it is easy to install and works
around town and out to about 30miles here.

73 dave kd4kw

Date: 9 May 94 18:51:06 GMT
From: agate!howland.reston.ans.net!cs.utexas.edu!geraldo.cc.utexas.edu!
portal.austin.ibm.com!awdprime.austin.ibm.com!blood@ucbvax.berkeley.edu

Subject: Thru Glass Antenna
To: ham-ant@ucsd.edu

I have the Larsen 2 Mtr and find that it will not properly handle
50 watts. Seems to work fine on 10 watts however. SWR will be higher
than you would like. Generally, works better than you would think, but
not as good as with a roof mount. Mechanically good. (looks nice also)
(Opinion my own, not an agent of my employeer)

Date: 10 May 94 00:38:40 GMT
From: eng.iac.honeywell.com!ws07.iac.honeywell.com!dphillips@uunet.uu.net
Subject: Thru Glass Larsen Ant
To: ham-ant@ucsd.edu

I have used a Larsen 2 Mtr Thru Glass antenna mounted on a Chevrolet Suburban now
for 8 months. Maybe I have done a better job at installation than some out there
since I show a very good 1.5:1 SWR accross the band and no problem running 50
watts. This antenna incidentaly is mounted on a factory smoke glass window.

I like this antenna!. It is versatile, reliable and easy to install with no damage
to the vehicle.
--

Dave Phillips KB7JS | "Takeoffs are optional,

Phoenix, AZ, USA | Landings are mandatory"

dphillips@ips.iac.honeywell.com |

Date: Mon, 9 May 1994 15:30:41 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!noc.near.net!news.tufts.edu!
pearl.tufts.edu!rfeldber@network.ucsd.edu
Subject: Vertical antenna advice
To: ham-ant@ucsd.edu

Netters;
   After many years off the air, I am now getting ready to fire up once
again (my 10 yr old daughter just passed her novice exam!). I'm thinking
of buying a multiband vertical such as the Cushcraft R7 or the MFJ-1796.
Any comments on performance? Verticals without radials are new to me.
Also, I was planning on mounting the antenna on a mast on a 3rd floor chimney
which has a aluminum chimney cap in it. Will the cap affect antenna
performance? Any suggestions would be appreciated. Thanks
Ross f.

Ross Feldberg
W1HYQ
RFELDBER@PEARL.TUFTS.EDU

Date: 9 May 94 19:29:14 GMT
From: sdd.hp.com!hp-pcd!hpcvsnz!tomb@hplabs.hpl.hp.com
Subject: Whats inside Glass antenna mounts?
To: ham-ant@ucsd.edu

blood@austin.ibm.com wrote:

: So much for thru the roof, Does anyone know what the transmission
: method is to get the RF thru the glass. Most assume that it is just
: a flat metal plate acting as a capacitor, but I suspect something
: more elaborate such as two halfs of a balum. (Actual technical discussion!)

Depends on the radiator. The radiator with its mounting block will have some feedpoint impedance. On the inside of the glass from that, you are a capacitor away, plus some capacitance to ground, resulting in some other impedance. What's in the little box depends on the matching that must be done to get from the feedline to that impedance. For example, a radiator just over 1/4 wave long, end fed against a ground plane, will look inductive with a resistive component not too far from 50 ohms; the inductive part can be cancelled with the thru-glass capacitance; at least on 2m this is quite reasonable. See QST from about a year ago for a construction article using this method. If the radiator is about 1/2 wave long, the feedpoint impedance is much higher. Then the matching network needs to transform from 50 ohms to perhaps 10 times that. This can be done with a tapped tank, or with other simple networks. I've used an "L" network with series inductor and shunt capacitor on a homebrew 440 thru-glass. Works fine for me. Because the feedpoint impedance of a 1/4 wave radiator is low, the current at the feedpoint is relatively high, and you need to provide a ground connection for the return current. The much higher impedance of the 1/2 wave radiator makes the feedpoint current much lower for a given power, and it's relatively easy to get rid of that current with a little capacitance to ground, or an inconspicuous "radial" arrangement. This makes a much better antenna for a car with a non-metalic roof ;-)

BTW, loading coils and the end effects of the mounting block/feedthru capacitor significantly alter the feedpoint impedance for that of a simple uniform-crosssection radiator. I was a bit surprised by some measurements I did with an HP3577 network analyzer to see what sort of matching network would be required.

73, K7ITM

Date: 10 May 94 06:37:33 GMT
From: pacbell.com!amdahl!netcomsv!netcom.com!wa2ise@decwrl.dec.com
To: ham-ant@ucsd.edu

References <2pmopo$pim@tymix.Tymnet.COM>, <CpCspy.Fs9@hpcvsnz.cv.hp.com>,
<CSLE87-090594095958@145.39.1.10>v
Subject : Re: 50-ohm Coax For A'Buryin

One way to keep water out of the sprinkler hose (for the coax) is to form
an upside-down "J". this places the open end pointing down, with a few
inches of tube vertical before it curves over to going to the ground.

End of Ham-Ant Digest V94 #137
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